

**What Is Claimed Is:**

1                    1.     A method of operating a communication system  
 2 comprising the steps of:  
 3                    assigning a first code to a first beam of a mobile user;  
 4                    assigning a first code to a second beam of a second user;  
 5                    moving the first beam with the mobile user;  
 6                    continually determining whether an interference occurs between  
 7 the first beam and the second beam; and,  
 8                    when an interference occurs between the first beam and the  
 9 second beam, reassigning a second code to the first beam.

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1                    2.     A communications system comprising:  
 2 a first mobile user device;  
 3 a second user device; and,  
 4 a high altitude communications device in communication with a  
 5 first mobile user device in the second user device, the high altitude  
 6 communications device assigned a first beam having a first code to the first  
 7 mobile user and assigns a second beam having the first code to the second user,  
 8 said device continually determining whether an interference occurs between the  
 9 first beam and the second beam and, when an interference occurs, reassigning a  
 10 second code to the first beam.

1                    3.     A system as recited in claim 2 wherein said high altitude  
 2 communications device comprises a communications platform.

1                    4.     A system as recited in claim 2 wherein said  
 2 communications platform is located in a stratospheric location.

1                    5.     A system as recited in claim 2 wherein said high altitude  
 2 communications device comprises a satellite.

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1 6. A system as recited in claim 2 wherein said satellite is  
2 selected from the group consisting of a medium earth orbit satellite, a low earth  
3 orbit satellite, and a geostationary satellite.

1 7. A system as recited in claim 2 further comprising a  
2 device operations center.

1 8. A system as recited in claim 7 further comprising a  
2 gateway station coupled to the high altitude communication device.

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1 9. A system as recited in claim 8 wherein said gateway  
2 station couples said users to terrestrial networks through the high altitude  
3 communications device.

1 10. A method of operating a communications system  
2 comprising the steps of:

3 introducing a first user into the system;  
4 establishing a plurality of code bins;  
5 when an empty code bin exists, assigning the first user to an  
6 empty code bin;

7 when no empty code bins exists, determining whether the user  
8 may be assigned to a first one of the plurality of code bins by performing an  
9 interference check;

10 when the interference check is not passed, determining a second  
11 one of the plurality of code bins;

12 performing an interference check with the second of the plurality  
13 of code bins; and,

14 when an interference of the second code bin is not found,  
15 assigning the user the code associated with the second bin.

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